

JAPANESE

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CLAIMS DETAILED DESCRIPTION TECHNICAL
FIELD PRIOR ART EFFECT OF THE INVENTION
TECHNICAL PROBLEM MEANS EXAMPLE

[Translation done.]

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CLAIMS

[Claim(s)]

[Claim 1]An antimicrobial polymer particle which an antibacterial metallic component which comprised a metal ion or metallic compounds combines with a polymer particle chemically, and is supported, comprising:

Said polymer particles are hydrophilic units.

A unit which has a combinable functional group chemically to an antibacterial metallic component including at least one atom chosen from an oxygen atom, a nitrogen atom, and a sulfur atom.

A bridge construction unit.

[Claim 2]The antimicrobial polymer particle according to claim 1 which comprises hydrophilic polymer gel characterized by comprising the following.

Hydrophilic units in which hydrophilic polymer which has the structure of cross linkage contains a nitrogen atom.
 A unit which has a combinable functional group chemically to an antibacterial metallic component including at least one functional group chosen from a carboxyl group, a pyridyl group, and a sulfhydryl group.
 A bridge construction unit.

[Claim 3]The antimicrobial polymer particle according to claim 1 whose mean particle diameter of a polymer particle is 0.1 nm - 100 micrometers.

[Claim 4]The antimicrobial polymer particle according to claim 1 which is at least one metallic component chosen from a group which an antibacterial metallic component becomes from silver, platinum, copper, zinc, nickel, cobalt, molybdenum, and chromium.

[Claim 5]The antimicrobial polymer particle according to claim 1 whose holding amount of an antibacterial metallic component is 0.01 to 70% of the weight of the whole in metal conversion.

[Claim 6]Nitrogen content hydrophilic units and a unit which has an oxygen content functional group, a nitrogen content functional group, or a sulfur content functional group, Comprise a hydrophilic polymer particle with a mean particle diameter of 1 nm - 10 micrometers which has a bridge construction unit, and an antibacterial silver ingredient supported by carrying out a chemical bond to said functional group of this polymer particle, and a holding amount of an antibacterial silver ingredient by silver conversion. The antimicrobial polymer particle according to claim 1 which is 1 to 50% of the weight of the whole.

[Claim 7]An antibacterial metallic component which comprised a metal ion or metallic compounds An oxygen atom, A manufacturing method of an antimicrobial polymer particle which combine chemically and a functional group of hydrophilic polymer particles which have the structure of cross linkage is made to support, including at least one atom chosen from a group which consists of a nitrogen atom, a sulfur atom, and a phosphorus atom.

[Claim 8]A resin composition containing an antimicrobial polymer particle according to claim 1 and resin.

[Claim 9]A manufacturing method of an antibacterial resin composition which mixes an antimicrobial polymer particle according to claim 1 and resin.

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